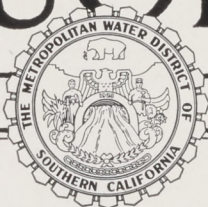


• COLORADO RIVER • AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT

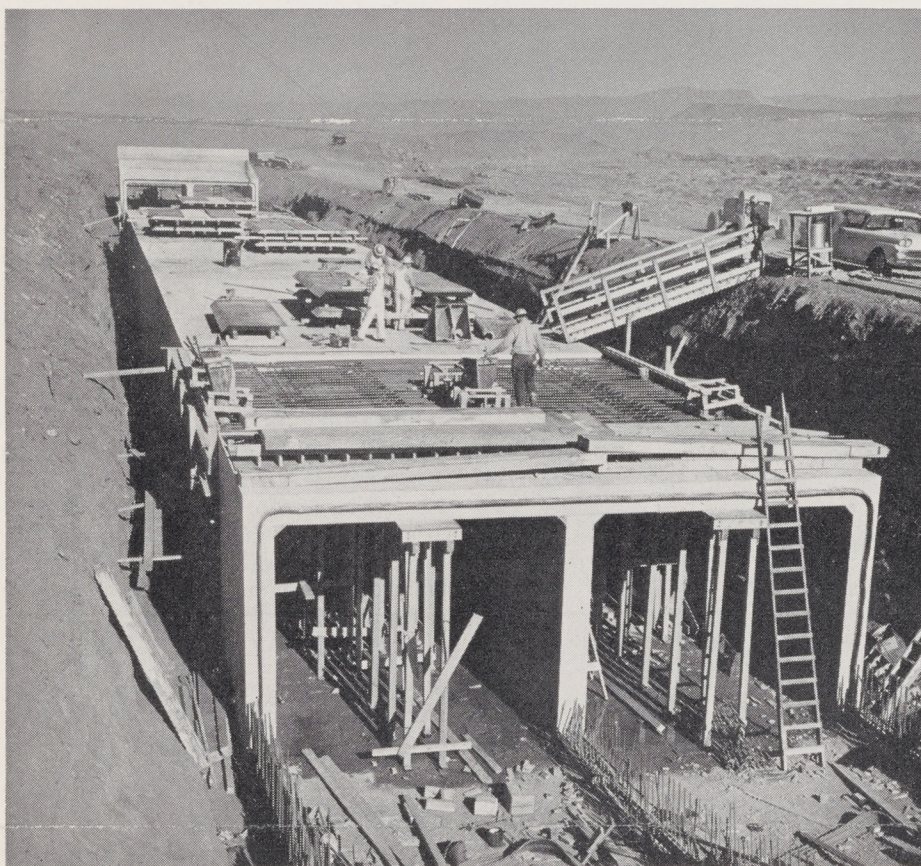


OF SOUTHERN CALIFORNIA

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Shown above is work under way on the construction of a double box siphon on the expansion of the main aqueduct. This siphon is located about four miles west of the San Jacinto tunnel near Mt. Rudolph. Its purpose is to provide drainage over the aqueduct. The siphon and the canal sections it links together will have a capacity of 1000 cubic feet of water per second. The work is being performed by the Winston Bros. Company.

Contract Awarded For Lake Mathews Enlargement

A major step forward in the giant program of meeting the ever-increasing water needs of Southern California was taken on February 10 when the Board of Directors of the Metropolitan Water District awarded a \$7,583,866 contract for the enlargement of Lake Mathews, the terminal reservoir of the Colorado River Aqueduct.

The District Board acted on the recommendation of Robert B. Diemer, General Manager and Chief Engineer of the

District, who stated that the work will increase the usable storage capacity of Lake Mathews from about 107,000 acre-feet to about 182,000 acre-feet (60 billion gallons) and will provide a greater degree of flexibility in the operation of the Colorado River Aqueduct, pumping plants and distribution facilities.

Mr. Diemer said that the enlargement of the reservoir is one phase of a \$200 million expansion program now being carried forward by the District to bring the aqueduct and its distribution system to its full planned capacity of more than one billion gallons of water a day. The

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District Lists Essentials For Statewide Water Project

The Board of Directors of the Metropolitan Water District on February 10 approved what were declared to be the essentials of a statewide water project and the draft of a proposed constitutional amendment designed to protect contracts for the delivery of water from State projects from impairment by any act of the Legislature. The action of the District Board was taken on the recommendation of its Water Problems Committee.

The Board went on record as submitting the proposed constitutional amendment to the voters of the State at the 1960 General Election, and recommended the creation of a "California Water Authority" consisting of a seven-member board "to direct construction, operation and administration of the authorized projects of the California water program." It was recommended that the "Authority" board of directors consist of three Northern California residents and three Southern California residents, with the Director of the Water Resources Department to be chairman.

In his recent water message to the Legislature, Governor Brown recommended a 500 million dollar bond issue to complete the State water development program outlined in his message. The Metropolitan Water District Board, at its February 10 meeting, approved a statement "that it is the sense of this Board of Directors that a 500 million dollar bond issue, as proposed by the State Water Project, is deemed inadequate. Based on such information as is available, an adequate bond issue would have to be one and one-half billion or two billion dollars. This District is willing to accept any plan or combination of plans that will insure the construction of the work as an entity, but the pay-as-you-go plan would not be adequate for the purpose without a substantial bond issue."

Governor Brown, in his recent water

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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

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Water Project Essentials

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message, recommended the appropriation of \$38,200,000 for water development plans and works. Acting on the motion of Vice Chairman Warren W. Butler, the District Board approved a motion to "endorse appropriation of \$38,200,000 provided the Legislature submits to the electorate a Constitutional Amendment providing for permanent contracts for the delivery of water and the right to sue the State to enforce performance."

Following is a condensed text of the Essentials of a Statewide Water Project approved by the Metropolitan Water District Board.

1. Submit to the State's voters at the 1960 election a Constitutional Amendment requiring firm contracts for permanent State water service, the Amendment to say that the State may sue and be sued with respect thereto.

2. Provide funds adequate to complete the project including water transmission facilities into both Northern and Southern California areas.

3. Establish a separate minimum water price at each State delivery point, based on ultimate operating conditions at theoretical full capacity to each such point of those conservation, storage and transmission facilities then completed.

4. Create the "California Water Authority" consisting of a seven-member board to direct construction, operation, and administration of the authorized projects of the California water program, clothed with independent full power and authority, including the issuance and sale of bonds as voted by the people, three to be Northern California residents and three to be Southern California residents, with the Director of Water Resources to be Chairman.

5. Define and limit in the bond authorization the projects to be built with bond funds to be authorized, so that voters will have knowledge of the projects they are approving.

Lake Mathews Enlargement

(Continued from Page One)

awarding of the contract for the enlargement of Lake Mathews marks the final step in the expansion of the main aqueduct. All work on the expansion program is scheduled for completion in 1960.

The work at Lake Mathews will raise the maximum elevation of the reservoir water surface 33 feet and will increase the surface area from 2000 acres to 2750 acres, Mr. Diemer stated.

"Lake Mathews is located approximately 10 miles southwesterly of the City of Riverside in unincorporated territory. The work involves raising the existing embankments 33 feet and constructing extensions to existing embankments and one additional small embankment. It will include approximately 6,000,000 cubic yards of earth embankment and rockfill, 35,000 cubic yards of concrete in embankment pavement, a spillway, bridges, outlet tower enlargement, miscellaneous structures, a foundation drainage system and appurtenant features," Mr. Diemer declared.

Mr. Diemer said that nine bids were received for the work and the award was made to the low bidder, Winston Bros. Company and Green Construction Company, joint venturers.

The reservoir, in its initial development, was completed in 1937, Mr. Diemer said. At that time it was called Cajalco Reservoir. In 1940, the name was changed to Lake Mathews in honor of the late W. B. Mathews, who was the first General Counsel for the District.

"The original design of Lake Mathews was made with provisions for two stages of construction. The second stage was postponed until such time as the increased storage capacity would be required," Mr. Diemer declared.

"In 1952, the District initiated its expansion program and the enlargement of Lake Mathews was included as one of the necessary projects. The reservoir will be in service throughout the construction period which is scheduled for completion by December 31, 1960," Mr. Diemer concluded.

6. Provide statutes, in advance of contract negotiations between the State and water purchasing agencies, for uniform policies and for terms to be defined clearly so as to assure contract workability and the meeting of local requirements and conditions.

7. Allocate all water and power revenues, with the exception of those provided in Section 3, exclusively for operation and maintenance costs and for bond interest and redemption.

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For the RECORD

(The following items are noted from the report of General Manager and Chief Engineer Robert B. Diemer, filed February, 1959, covering District operations for January, 1959.)

Colorado River — The water surface of Lake Mead dropped 3.44 feet to elevation 1182.74 feet above sea level and usable storage decreased 466,000 acre-feet to 21,515,000 during January. Average rate of discharge for the month at Hoover Dam was 12,940 cfs.

Pumping and Power—Hayfield plant delivered 52,110 acre-feet of water for distribution during January. Pumping was on a 4-pump basis until January 21 and a 4½ pump basis thereafter. The Edison and Parker-Davis systems were in parallel with the District system continuously throughout the month. The District's share of Parker energy amounted to 22,786,907 kwhrs, all of which was used in the District system. Peak deliveries to and from Edison Company were 110,000 kw and 125,000 kw respectively.

Weymouth Softening and Filtration Plant—Colorado River water was softened from 310 to 130 ppm of hardness at an average rate of 272 cfs during January. The daily rate of flow varied from a maximum of 353 cfs to a minimum of 193.

Construction — On installation of Pumping Units 7, 8 and 9, the contract is 59% complete; 65% at Gene, 74% at Iron Mountain, 57% at Eagle Mountain and 49% at Hayfield. Pump Delivery Line No. 3, the contract is 95% complete.

Siphon work on main aqueduct (Earp to Whitewater)—Contract 669 was completed and accepted previously; contract 672 was completed on December 31, 1958 and notices of completion were filed January 7, 1959.

The contract is 17% complete on Canals and Box Siphons — Schedules 11C, SD1C, SD2C, SD3C and SD4C.

On Pipe Siphons — Schedules 11P, 12P and SDXP—the work is 16% complete; Schedules SD8P and SD9P (Second San Diego Aqueduct) work is 81% complete, and work on Schedules SD10P and SD11SC, work is 90% complete. On Schedules 76SC, 77SC and 78SC (Lower Feeder) the work is 95% complete.

Purchasing — Total expenditures covered by 319 purchase orders and 4 agreements during January aggregate approximately \$108,356.

Aqueduct Capacity Soon To Be Double Present Size

The Colorado River Aqueduct of the Metropolitan Water District will soon be able to deliver double the amount of water it is now bringing to the coastal plain of Southern California, Robert B. Diemer, General Manager and Chief Engineer of the District, stated on February 10 before a meeting of the Los Angeles Convention of the American Society of Civil Engineers at the Statler Hilton Hotel.

Mr. Diemer pointed out that the aqueduct, which has been selected by the ASCE as one of the Seven Civil Engineering Wonders of the United States, was completed in its first development and placed in operation in 1941.

"Since 1952, the District has been engaged in carrying forward a huge aqueduct expansion program. It will cost in excess of \$200 million and is scheduled to bring the aqueduct to its full planned capacity early in 1960," Mr. Diemer declared.

"The Metropolitan Water District has a contract with the United States Government for diversion into the Colorado River Aqueduct of 1,212,000 acre-feet annually of water from the Colorado River. The aqueduct is now operating at approximately one-half capacity.

"With work now being completed on the installation of some 22 miles of inverted siphons on the main aqueduct and the installation of pumping units 7, 8 and 9 in each of the five pumping plants, the aqueduct will soon be able to deliver the full quantity of water called for by the District's contract with the Government. This will amount to about one billion gallons of water per day," Mr. Diemer said.

"During the next 10 years, there will be sufficient capacity in the aqueduct to bring large quantities of Colorado River water to help replenish dangerously depleted underground basins on the coastal plain of Southern California. Extensive programs for the replenishment of underground water basins with Colorado River water are now under way in Los Angeles and Orange Counties, and steps are being taken to extend this replenishment program in Los Angeles County," Mr. Diemer stated.

Water Project Essentials

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8. Segregate and assign for separate use funds from an override charge of \$1.00 per acre-foot for all State water deliveries to the "Authority for the principal purpose of developing future State water projects not included in



Robert A. Skinner, left, Assistant Chief Engineer of the Metropolitan Water District, and Finley B. Lavery, right, Assistant Chief Engineer of the Los Angeles County Flood Control District, greet Francis S. Friel, center, President of the American Society of Civil Engineers, upon his arrival at Los Angeles International Airport to attend a week-long convention of the Society in Los Angeles. President Friel promptly donned a construction helmet and announced he was "ready to go to work." Mr. Skinner is President of the Los Angeles Section of the Society and Mr. Lavery is a National Director.

plans for which the original bond authorization was voted, such new or future projects to be designated in rotation by the "Authority" as sufficient funds accumulate.

9. Base economic feasibility and consequent authorization of each major construction unit upon potential ability of water users to pay operation, maintenance, and bond servicing costs, computed on average life of the bonds, and also the override charge upon the water delivered. Compute economic feasibility also on the assumption of project full capacity operation. In evaluating feasibility, the "Authority" should give due weight to any possible recreational benefits of statewide importance.

10. Prorate water, in the event of shortage, for all State water system deliveries, basing such proration upon present State Water Code provisions relating to water use priorities.

11. Time all expenditures for construction of State water facilities south of the San Joaquin Valley until completion in the proportion of the southern area's assessed valuation to the entire State's; prorate any special fund grants for regional purposes between the North and South upon an equitable basis.

12. Set forth all foregoing principles, as consistent, partly within the Con-

Status of Supreme Court Suit Told to District Board

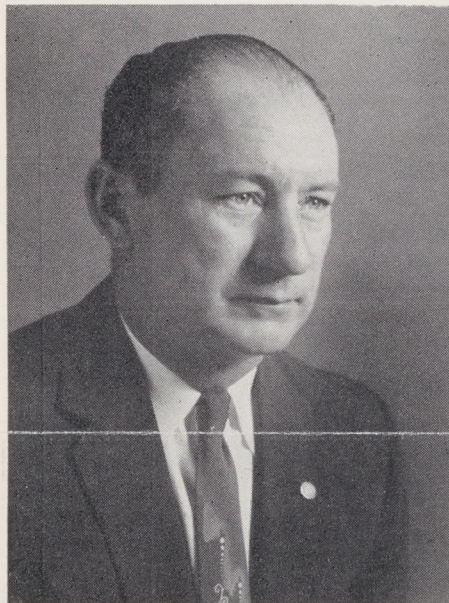
Special Counsel James H. Howard, on February 10, made a report to the Metropolitan Water District Board of Directors relating to the present status of the Supreme Court Suit over water rights on the Colorado River.

Following are excerpts from Mr. Howard's report:

"Since my last report, the Special Master in the Supreme Court Suit, Arizona vs. California, has entered an order providing that proposed findings and openings briefs shall be filed by all parties not later than April 1, 1959. Answering briefs are to be in not later than June 1, 1959. Any rebuttal is subject to further order of the Special Master. The change in schedule is attributable to delay in receipt of the corrected transcript and to revised estimates of time required for printing."

stitutional Amendment, or Amendments, partly in the permanent service contracts, partly in the bond proposition texts, and partly in statutes as needed to establish the plan at its inception and, from time to time, to meet conditions as they arise.

NEWS FROM FIELD AND OFFICE



Walter Murphy—25 Years of Service.

Walter Murphy became eligible for his 25-year service pin on January 31, 1959. He joined the District on January 31, 1934, at Yellow Canyon Camp for work on the construction of the Coachella tunnels. He was transferred to Gene and Intake in December, 1937, during the construction of these pumping plants. In 1939, he became an operator on the pumping system, later advancing to system operator. Since then he has advanced steadily through the grades of Station Electrician and Assistant Station Chief to that of Station Chief of Intake Pumping Plant, the position he now holds.

James A. (Jimmy) Reider, Utility Man at Gene Pumping Plant and the son of Mr. and Mrs. Joseph Reider, was married in a double ring ceremony to Linda Louise Sander on February 21. The couple exchanged vows at the First Evangelical Lutheran Church in Redlands. Eileen Reider, the bridegroom's sister, was the maid of honor and a reception followed at the Joe Reider residence in Redlands. Following a honeymoon trip, the couple are making their home at Gene Village.

Willard Kincaid, Utility Man at the San Jacinto Reservoir, and his wife, Ardath, welcomed their fourth daughter on January 30 at the Hemet Valley Hospital. The new arrival weighed 8 pounds 2 ounces and was named Elizabeth Ann. This was the eighth youngster for the Kincaids, making four boys and four girls.

Lee Crawshaw, son of Harris V. Crawshaw, Office Engineer, became a bridegroom on January 30 when he was married to Mary Jo French in the chapel of the Church of the Good Shepherd in Arcadia.

The new Mrs. Crawshaw is a graduate of Mark Keppel High School and is a member of the Los Angeles Figure Skating Club and the U. S. Figure Skating Association. Lee is a graduate of Pasadena City College and is now a Junior at the University of Southern California, majoring in engineering.

George Oliver, District Inspector at the pipe yard of the American Pipe and Construction Company, and his wife, Joyce, became parents for the first time early in February when they adopted a week-old baby girl. The young lady has been named Joy, and she received a collapsible high chair and a blanket from George's District friends.

George Craig, Maintenance Man at Gene Pumping Plant, and Catherine Jenets became man and wife at the First Baptist Church in Phoenix, Arizona, on January 17.

Richard Proctor, Jr., Engineer on the enlargement of Lake Mathews, and his wife, Ena, are the proud parents of a baby boy born on February 7 at the Riverside Community Hospital. He weighed 7 pounds 14½ ounces and has been named Mitchell James.

Mr. and Mrs. Harry Swango have a new grandchild born to Charles and Myrna Swango in Redding on February 11. The young man weighed 7 pounds 8 ounces and arrived on his Grandmother's birthday. He has been named Robert Gordon. Harry is a System Operator with the District.

Pretty Paulette Adams, daughter of Mr. and Mrs. Ralph Adams, has been doing very well as a photographer's model while continuing her studies as a Senior at the Coachella Valley Union High School. She has done modeling work in Palm Springs and various other communities in the area. During recent months her picture has appeared in numerous newspapers including the Los Angeles Times, the Los Angeles Examiner, the Riverside Enterprise, the Indio News and the Indio Date Palm.



Greg, left, and Larry Hines, sons of Ed and Dorothy Hines at Gene Village, wouldn't trade their two pets for a barrel of monkeys. The burro was found up near Copper Basin Reservoir and so, naturally, he is named Copper. He became domesticated in a matter of hours and now follows the boys around like Buddy, the dog. Buddy seems to regard Copper as just an oversized dog and they get along fine.